



A REPORT
ON THE
TERMITE CONTROL PROGRAM

A GREEN PAPER

November, 1982

SB
945
.T45
O57
1982



Ministry
of the
Environment

The Honourable
Keith C. Norton, Q.C.,
Minister

Gérard J. M. Raymond
Deputy Minister

[illegible]

A REPORT ON THE TERMITE
CONTROL PROGRAM

NOVEMBER 1982

A GREEN PAPER

DATE DUE			

--

SB
945.745
057
1982

PREFACE

An Inter-ministerial Committee was set up and assigned the tasks of reviewing the present Ontario termite control programs, and related programs; of investigating the various options, and making recommendations on the implementation of the most effective program.

The Committee members consisted of:

Ministry
of the
Environment

K. E. Symons, Chairman
J. J. Onderdonk, Secretary
G. M. Cutten

Ministry of
Municipal Affairs
and Housing

D. Wells
A. Zdanowicz
T. Jew

Ministry of Consumer and
Commercial Relations

G. Adams
A. Larden

Ministry of Natural Resources

C. Kirby

The Committee report is presented herewith in the form of a green paper for discussion purposes and to draw input from other ministries and municipalities.

Copyright Provisions and Restrictions on Copying:

This Ontario Ministry of the Environment work is protected by Crown copyright (unless otherwise indicated), which is held by the Queen's Printer for Ontario. It may be reproduced for non-commercial purposes if credit is given and Crown copyright is acknowledged.

It may not be reproduced, in all or in part, for any commercial purpose except under a licence from the Queen's Printer for Ontario.

For information on reproducing Government of Ontario works, please contact Service Ontario Publications at copyright@ontario.ca

TABLE OF CONTENTS

The Ontario Termite Control Program

Introduction	1
Background	1
Present Ontario Program	2
Options	5
Recommendations	6

Proposed Termite Control Program	7
----------------------------------	---

Appendix I	Termite Biology and Habits
Appendix II	The Termite Grant Program in a North American Context
Appendix III	A Brief History of the Termite Control Program
Appendix IV	Discussion Notes on Status of the Program
Appendix V	Roles of Provincial Ministries in a Termite Control Program

THE ONTARIO TERMITE CONTROL PROGRAM

I INTRODUCTION

The Eastern Subterranean Termite is probably the most widespread and destructive species of termite on the North American continent. In Canada, termite activity is limited to two provinces, British Columbia and Ontario. In the latter there are 26 municipalities with known termite infestations. It can cause extensive damage, not readily visible to the homeowner, to homes and other wooden structures resulting in severe property and economic losses which will escalate without control programs.

Policies of the Government of Ontario bearing on this issue include:

- 1) there shall be a suitable and adequate housing stock through the construction of sound homes and neighbourhood improvement and renovation programs and,
- 2) the environment shall be protected through the safe and effective use of pesticides to control undesirable or destructive pests.

It is appropriate that the Government of Ontario should therefore have a well defined policy and integrated program with respect to the control of termites.

II BACKGROUND

1) The Pest

The Eastern Subterranean Termite is an insect capable of using any cellulose-based material as a food source. It is social in that the young are cared for cooperatively and there is division of labour. Appendix I details the biology of the subterranean termite in Ontario.

The termite colony or nest is not a well-defined area, but consists of a complex of tunnels, galleries and foci which may be in soil, in a tree stump or a piece of wood. In their search for food, termites travel through the soil, within wood or through protective tubes built by workers on surfaces exposed to the air. Termites can be distributed to new localities when the wood or soil in which they are living is moved in the course of, for example, construction work or landscaping.

2) North American Situation

(i) Distribution

Every state in the United States except Alaska has a problem with termites. In Canada, the termite infestation in British Columbia is restricted to a small part of Vancouver Island. In Ontario, there are 26 locations reporting termite activity.

Termites were first identified in Ontario at Point Pelee in 1929. The infestation in the Toronto area was discovered in 1938. Termite distribution has subsequently been monitored sporadically. Currently, the infestations are restricted to the southwestern part of the

province, south of a line from Metro Toronto to Kincardine. Twenty-four municipalities have small, isolated pockets of termites, while the City of Toronto and the Borough of East York have more serious and widespread infestations. Appendix II details the North American termite situation.

(ii) Control Programs

The Termite Control Program of the Government of Ontario is the only one in North America, apart from New York State, to provide financial support in addition to education and technical information.

The termite control programs in British Columbia and the United States are generally limited to the provision of educational and technical background information relating to the extermination of termites and the prevention of infestations. In addition, New York State provides financial support to senior citizens. Further, the U.S. Veteran's Administration of Housing and Urban Development recommends that pest control companies fill out a termite control certificate on properties which they have treated.

(iii) Research Programs

Extensive research programs into the biology and control of termites are carried out in the United States. The U.S. Forest Service Research Laboratory, Gulfport, Mississippi, carries out extensive research into the biology of termites, their habits and methods of control. An associate laboratory in Madison, Wisconsin, co-ordinates its efforts with the Gulfport Laboratory. The Pesticides Control Section, Ontario Ministry of the Environment, follows closely the findings of these laboratories, particularly that in Wisconsin which is in a geographically similar situation. Limited research into the biology of termites has been carried out in Ontario at the universities of Guelph and Toronto.

III PRESENT ONTARIO TERMITE CONTROL PROGRAM

1) Administration

In 1975, the administration of the grant component of the termite control program was placed under the jurisdiction of the Pesticides Control Section, Ontario Ministry of Environment, since it was responsible for the use, sales and distribution of pesticides, and the licencing of pest control companies and applicators under the Pesticides Act. The Section takes an active role in promoting the extermination and pretreatment control methods to contain or to substantially reduce the spread of termites. The Program covers six areas, namely;

- i) a Survey and Monitoring Component: to determine more clearly the extent of termite infestations and to determine the effectiveness of the treatment procedures.
- ii) a Research Component: to determine the best methods of treating infestations and of preventing the spread of infestations.

(iii) a Technical Training and Support Component:

to upgrade and expand the capabilities of pest control companies, municipal officials and the public through technical training and the provision of technical literature.

(iv) a Public Education Component: to increase the public's awareness of the extent and impact of the problem with termites.

(v) an Incentive Grant Component: to promote termite control by assisting the homeowner with the cost of the remedial work and treatment of the infestation. The present funding level for the grant component is \$500,000.00.

(vi) a Municipal Component: to pass the necessary bylaws and enforce these bylaws with respect to termite control.

The incentive grant component provides provincial grants to home occupants for the control of termites on residential properties where the municipality has entered into a termite control agreement with the Ministry of the Environment. The municipality must also pass an appropriate bylaw enabling it to enforce termite control. The grant covers 60% of the lower of two cost estimates. The maximum grant awarded is \$2,000.00 per property based on a) the cost to remove all soil-wood contact and b) the cost to chemically treat the soil around and beneath the building plus all other ancillary buildings, trees and fences. A grant is also available for the chemical pre-treatment of soil around a residential dwelling as it is being constructed. This grant covers 60% of the cost of chemical treatment to a maximum of \$1,000.00.

Although commercial and industrial properties are required to be treated under the termite bylaw, they are not eligible for funding under the present program. Details of the administration of the present program are included in Appendix III.

2) Evaluation of Present Program

i) PROS

The present program has been successful in:

- a) assisting municipalities in the identification and acceptance of termite problems through surveys and monitoring. The number of municipalities involved in the termite control program has increased from one in 1975 to 18 in 1982. Eight other municipalities have been shown to have termite problems and are currently entering the program. Monitoring of treatments has shown that treatment of the whole property by chemical treatment of the soil, and the breaking of soil-wood contact, has been effective in protecting the property. Similarly, treatment of small isolated pockets of infestations in most municipalities has been effective in controlling termites or preventing their spread;
- b) increasing municipal and public awareness of termite infestations;
- c) increasing the technical capabilities of pest control companies, municipal officials and the public in termite control;
- d) making available and disseminating technical and educational material on termites and their control; and,

- e) promoting effective treatment and protection of infested properties.

The treatment has increased dramatically in smaller communities and monitoring has shown that effective control has been achieved.

(ii) CONS

The present program has deficiencies related to:

- a) incomplete definition of active termite areas in Ontario;
- b) inconsistent application of the requirement that municipalities implement block or area treatments;
- c) escalation of demand for treatment beyond the level of funds committed to the program;
- d) inconsistent enforcement of existing municipal bylaws requiring pretreatment and treatment of infested areas;
- e) monitoring has shown that, in the City of Toronto where 60% of the grant funds have been paid, while individual properties have been protected, the major problem of the widespread infestation has not been addressed;
- f) differences in perception at the staff level in how the program should be implemented or modified where large scale infestations occur;
- g) inadequate regulatory requirements and facilities to dispose of, or sterilize, termite infested wood, soil etc;
- h) absence of guidelines with respect to the prioritization and the administration of funding in a one-year period, i.e. lack of a priority system based on need;
- i) absence of time limits on grant uptake which ties up available funds;
- j) lack of financial commitment on a long-term basis which impedes the undertaking of detailed work for grants, research and technical aspects of the program; and,
- k) insufficient resources to carry out detailed survey and monitoring in the areas of extensive infestation - The City of Toronto and the Borough of East York. The program as developed does not provide for integration with programs in other Ministries, such as the Ontario Home Renewal Program, Neighbourhood Improvement Program, etc.

Appendix IV details the evaluation of the present termite control program.

IV RECOMMENDATIONS

THE COMMITTEE MAKES THE FOLLOWING RECOMMENDATIONS

A COMPREHENSIVE AND INTEGRATED TERMITE CONTROL PROGRAM BE DEVELOPED AND IMPLEMENTED INVOLVING THE PROGRAMS AND RESOURCES OF PROVINCIAL MINISTRIES AND MUNICIPALITIES , ENCOMPASSING SURVEY AND MONITORING, RESEARCH, TECHNICAL ASPECTS, EDUCATION, DEBRIS AND SOIL DISPOSAL AND AN INCENTIVE GRANT.

SUBORDINATE RECOMMENDATIONS

- 1) The present program as administered by the Ministry of the Environment be continued until March 31st, 1983 and the proposed program be phased into place and operative on April 1st, 1983.
- 2) Surveys of the City of Toronto and Borough of East York be developed and financed by the Ministry of the Environment through consultants to determine the scope of termite infestations. These surveys to be implemented in co-operation with the Ministry of Municipal Affairs and Housing, City of Toronto and Borough of East York.
- 3) A working committee be formed to develop the details and procedures for the proposed termite control program. The Committee would consist of members drawn from the Ministries of Environment, Municipal Affairs and Housing, Consumer and Commercial Relations, and Natural Resources, and incorporate municipal participation.
- 4) The grant incentive component of the program for residential properties include:
 - i) Provincial grants to a maximum of \$750.00 for chemical treatment and the breaking of soil/wood contact.
 - a) For chemical treatment including pretreatment, 60% of costs to a maximum of \$250.00
 - b) For soil/wood contact work 30% of costs to a maximum of \$500.00
 - ii) Replacement of the present provincial system of making payments directly to homeowners by making quarterly payments directly to the municipality based on completion certificates and payment receipts.
 - iii) Replacement of the present provincial system of committal with funds paid to the municipality on proof of completed work.
 - iv) Conditions that provincial grants be available only to municipalities which: (a) develop a planned termite control program incorporating block treatment, (b) control the disposal of infested debris, (c) provide for the pretreatment of new construction in infested areas, (d) provide grants of not less than two-thirds of provincial grants and (e) base grants on the lower of two quotations.
- 5) The housing programs of the Ministry of Municipal Affairs and Housing incorporate recognition of the termite problem.
- 6) Procedures for an annual report on the status of the Ontario termite control program be developed by the Ministry of the Environment in conjunction with the appropriate ministries and municipalities.

FINANCIAL IMPLICATIONS

- Homeowner:** These recommendations will allow for the eligibility of more home occupants for assistance in control of termites. There will be an increase in the home occupant's share of the cost in protecting their property.
- Municipality:** Cost-sharing at 60/40 provincial/municipal will result in increased expenditures by municipalities in the Metro Toronto area. In other municipalities, where wood/soil contact work is not extensive, financial costs should be comparable to present costs. The decrease in the present administrative paper work of the municipality should offset the increase in municipal enforcement and inspection costs.
- Ontario Government:** A lower provincial grant maximum of \$750.00 will allow for grants to more home occupants to control termites for the same allocation.

V THE PROPOSED TERMITE CONTROL PROGRAM

1) Program Outline

The components of the proposed termite control program are:

i) Survey:

To determine clearly the extent and intensity of termite infestations in Ontario.

ii) Control Strategy:

To promote effective municipal planning for the systematic treatment of infested and adjacent properties based on infestation surveys and incorporating and promoting block treatments.

A block is defined as an area with given boundaries containing termite infested structures, and including adjacent structures and a buffer zone area where chemical treatment and wood/soil contact removal are required for preventive purposes.

To control the disposal of infested material through public information programs and enforcement of bylaws by municipalities.

To require the site of new construction in a termite infested area to be chemically pretreated.

iii) Monitoring:

To evaluate the effectiveness of the treatment procedures.

iv) Incentive Grant:

To promote termite control by assisting the home occupant or owner to carry the financial cost of the remedial work and treatment of the infestation.

v) Research:

To determine the best methods of treating infestations and preventing the spread of termites, and expand the knowledge on the biology and behaviour of termites.

vi) Technical Training and Support:

To upgrade and expand the capabilities of the pest control industry, municipal officials and others through technical training, updating on new research results and the provision of technical literature.

vii) Public Education:

To increase the public's awareness of the destructive capabilities of the termite and to outline the steps the public should take to control termites.

2) The Roles of Ministries in the Proposed Termite Control Program

The provincial ministries with involvement or interest in termite control are: Environment, Municipal Affairs and Housing, Consumer and Commercial Relations, and Natural Resources. Legislation administered by these Ministries allows for the development of the proposed termite control program at the provincial level. See Appendix V.

The Ministry of the Environment will be responsible for the administration of the proposed termite control program because of its jurisdiction in the control, distribution, sales, and use of pesticides. The goal of this Ministry, to protect the quality of the environment, is, in part, met through the promotion of the safe use and sound management of pesticides. The identification and control of infestations and the evaluation of control methods are components of its mandate.

Close liaison will be maintained with the Ministry of Municipal Affairs and Housing so that the results of surveying and monitoring can be interpreted and any necessary changes can be made to its programs, such as Neighbourhood Improvement Programs. The Ministries of Municipal Affairs and Housing, and the Environment would assist municipalities in the development of bylaws to require treatment and the proper disposal of material in termite infested areas. Liaison should be maintained with the Ministry of Consumer and Commercial Relations to keep it aware of developments which may lead to changes in the Building Code.

Technical information will continue to be passed to the pest control industry which is licenced by the Ministry of the Environment. Liaison with the Ministries of Municipal Affairs and Housing, and Consumer and Commercial Relations, especially with regard to research results, would result in technical improvements or changes to the appropriate programs related to housing and structures. The Ministry of Natural Resources would be involved in technical areas, including tree and shrub management.

The Ministry of the Environment will provide technical and scientific information for incorporation into publications and programs related to housing, and will also continue to supply educational material related to termites and their control.

Finally, the Ministry of the Environment will compile an annual report on the status of the termite control program.

3) Municipal Involvement

The municipalities would be required to enter into an agreement with the Ministry of the Environment in order to participate in this program.

Under the agreement, municipalities would be required to pass and enforce the bylaws requiring the treatment of termite infestations and make reports to the province.

These reports would assist in the co-ordination and implementation of surveys, treatment strategy, monitoring and incentive grant portions of the proposed program.

To participate, municipalities must develop a termite control program acceptable to the Ministry of the Environment incorporating block treatment, controlling the disposal of infested debris, requiring pretreatment of new construction in infested areas, and providing grants of not less than two-thirds of provincial grants based on the lower of two quotations.

APPENDIX I

TERMITE BIOLOGY AND HABITS

INTRODUCTION

The Eastern subterranean termite Reticulitermes flavipes is probably the most widespread and destructive species of termite on the North American continent.

Every state in the U.S., except Alaska, has some degree of activity. In Canada, subterranean termite activity is limited to two provinces, Ontario and British Columbia. British Columbia also has some dampwood termite activity but, from the most recent reports, it is not significant.

In Ontario, we have 26 locations reporting termite activity. An on-going survey conducted annually by the Ministry of the Environment has confirmed the location of termites in areas reporting activity in the past, as well as identifying termites in many new locations.

TYPES OF TERMITES

Generally speaking, there are three types of termites in North America.

1. Dampwood termites
2. Drywood termites
3. Subterranean termites

They are placed into these categories depending on where they live and what they eat.

Dampwood termites are usually found in damp, decaying wood but, once established, can attack sound dry wood. The infestation is started from a swarm and activity is restricted to wood only; there is generally no soil contact.

Drywood termites establish themselves in undecayed sound wood with little moisture; they do not maintain soil contact. This termite is occasionally found in imported goods, such as furniture.

The termite of most importance economically to Ontario is, of course, the subterranean termite.

TERMITE BIOLOGY

Classification

Order	Isoptera (iso - equal, ptera - winged)
Family	Rhinotermitidae
Genus	<u>Reticulitermes</u>
Species	<u>flavipes</u>

The Termite Society

A termite has two characteristics which together serve to distinguish it from most other insects.

1. It is able to utilize cellulose as food.
2. It is a social insect.

It is able to obtain nutrition from cellulose with the assistance of bacteria and protozoa living in its gut. These organisms break down the cellulose fibers so that they become digestible by the termites.

The termite is a social insect because:

- a) individuals of the same species cooperate in caring for the young;
- b) there is division of labour, with more or less sterile individuals working on behalf of the reproductives, and there is an overlap of at least two generations; offspring assisting parents at some stage of their life.

The transfer of food from worker to dependent members of the colony - reproductives, immatures and soldiers - is referred to as TROPHALLAXIS. To ensure that the gut of the immature members of the colony contain protozoa and bacteria, these members actively consume feces containing these organisms.

DESCRIPTION OF LIFE STAGES

The termite does not have a complete life cycle, i.e., egg - larva - pupa - adult, but goes through a partial or incomplete life cycle namely egg - larva - nymph₁ - nymph₂ - nymph_n - adult. In most instances a fourth instar nymph can function as a forager or worker. (Larvae have been defined as those individuals lacking wing pads, and nymphs as those possessing wing pads).

Differentiation from nymph to reproductive or soldier is not well defined. However, both of these forms are terminal; that is, the termite cannot progress to a higher form, nor can it regress to a lower form.

Secondary reproductives can develop in several different ways depending on the needs of the colony. Diagram 1 will help to illustrate the complex life cycle.

A soldier-nymph molts irreversibly to a mature soldier. In this form the head is much enlarged with strong protruding mandibles, used for defence, on which an enemy may be impaled.

The brachypterous (with wing pads) nymphs develop towards the alate or winged form of termite. This form assists with general chores in the colony by tending eggs and grooming other members.

Supplementary reproductives may develop from brachypterous nymphs (nymphoid reproductions) or apterous (without wing pads) larva (ergatoid reproductive), when a group of termites become isolated from the main colony due to collapse of galleries or because of the accidental death of the primary reproductive. Primary reproductives although present do not appear to swarm in Southern Ontario possibly due to climatic factors. A decrease in temperature for long periods of time has caused sterility in some insects, e.g., aphids, and may account for the limited number of primary reproductives found in colonies.

It is also known that in order for primary reproductives to mate successfully actual flight must occur prior to fertilization.

HABITS

The termite colony or nest is not a well-defined area, similar to a bee hive or an ant nest, but consists of a series of tunnels and galleries which may be centred in the soil, in a tree stump or in a piece of wood.

Foraging termites travel through the soil in shelter tubes. These shelter tubes, constructed of soil particles cemented together with a secretion from a gland in the frontal area, are also used to move vertically from the soil to a food source. The most obvious shelter tubes are seen on trees as well as on concrete basement walls. Shelter tubes are further employed as a means of crossing, or by-passing, materials, such as concrete or steel, that cannot be penetrated by the termite. It is evident that termites, while foraging, construct shelter tubes which radiate out from the colony in random directions. However, bait blocks, consisting of wooden material which have been treated with a species of Lenzites fungus are known to be very attractive to termites once they are found during this random foraging. These bait blocks have been used along with large scale visual surveying with variable success in our surveys over the past five years.

REFERENCE

1. Biology of Termites
Kumar Krishna and Frances M. Weesner
2. The Termites of the United States - A Handbook
Frances M. Weesner
3. M. I. Haverty USDA Forest Service - Paper presented at N.P.C.A.
Conference
4. Bulletin #748 The Connecticut Agricultural Experimental Station, New
Haven
R. L. Beard
5. National Pest Control Association Approved Reference Procedures
Subterranean Termite Control by The Wood Destroying Organism
Committee - available from N.P.C.A., 8150 Leesburg Pike, Suite 1100,
Vienna VA 22180, USA.

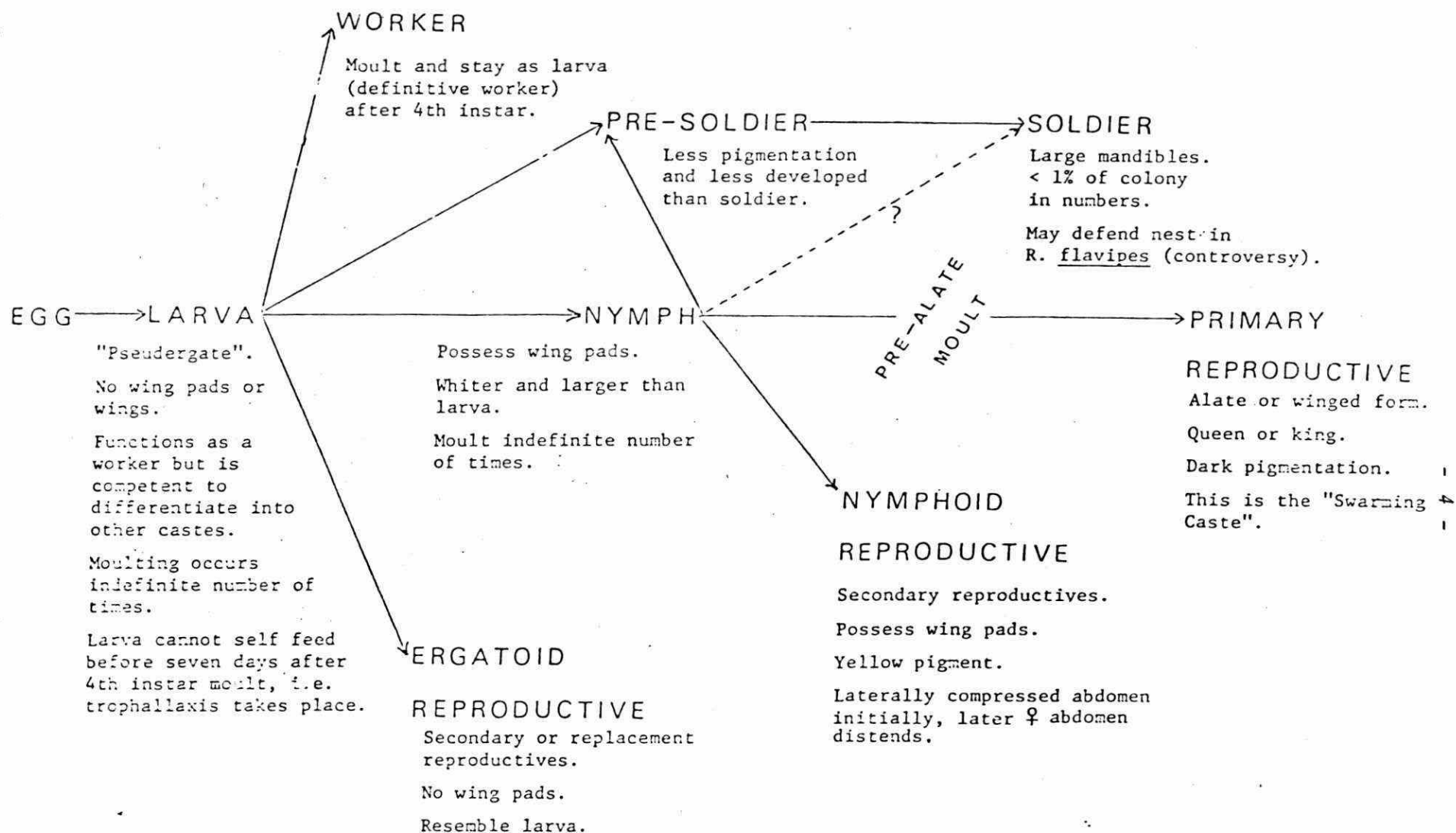


Diagram 1 Life cycle of Subterranean termite

APPENDIX II

THE TERMITE GRANT PROGRAM IN A NORTH AMERICAN PROSPECTIVE

Occurrence:

The subterranean termite was first identified at Point Pelee in 1929. It was subsequently found in Oxley, Amherstburg and Windsor, and the first infestation in Toronto was noticed in 1938. It has now spread extensively in Metropolitan Toronto and has become a serious economic pest. More recently, infestations have been discovered in Brampton, Oakville, Hamilton, Leamington, Kincardine, Thornhill, Dresden, Guelph, Elora, Fergus, Elmira, South Gosfield Township, Mersea Township, Markham Township and Nichol Township. Unfortunately there is every reason to expect to find more.

In Metropolitan Toronto, up to 1947 the infestation was limited to an area east of Yonge Street and south of Danforth Avenue. In the ensuing 35 years, termites have spread into all five Metropolitan municipalities.

Severity:

Subterranean termites are by far the most destructive insect pest of wood. The name subterranean refers to the life habit of this species of termite in that it lives in the ground. In the appropriate environment - the forest - this insect is a beneficial insect in the conversion of cellulose material into humus. Its main food supply is cellulose materials but besides infesting trees of low vigor, termites may infest fences, outbuildings, and both old and new buildings.

Past Control:

Beginning in the early 1960s, the Ontario Housing Corporation assisted a few municipalities in Metropolitan Toronto, who had passed the appropriate by-law in the control of termites. The Corporation offered grants of 25% of the cost of treatment or \$125.00, whichever was less, for private homes. The municipality matched this grant amount. These grants were available to all Metropolitan Toronto municipalities, however only the Borough of East York, the Borough of Scarborough and the City of Toronto passed the provincially required termite control by-law and received financial assistance for the control of termites.

Problems:

Under the program administered by the Ontario Housing Corporation, various problems existed as outlined in Appendix III.

Present Control Program:

Under the justification of the Ontario Ministry of the Environment the present termite control program is designed to promote control and preventative treatments that lead to eradication or substantial reduction and control of the termite population.

The program requires:

- The enactment by participating municipalities of a by-law requiring the control of termites on infested premises to provide for systematic control programs.
- the treatment of a property as a whole (dwelling, outbuildings, fences, trees, etc.) via the removal of all soil wood contact and chemical treatment to soil
- a system of grants to assist homeowners with approved termite control and preventative measures carried out by a licenced applicator in participating municipalities;
- an information and education program directed at the public, municipalities and the pesticides industry;
- surveying and monitoring of termite infestations for the purposes of program evaluation, development and assessment;

The Ministry of the Environment is responsible for development, technical expertise and environmental procedures. The program has improved the effectiveness of extermination and preventative measures. Financial support is an integral part and provides the necessary incentive to the municipality and the general public. The enforcement of the removal of wood/soil contact together with proper chemical treatment has drastically reduced the re-infestation rate of a treated property.

Map 1 shows the extent of infestation in Southern Ontario. This can be compared with the more serious problem in the United States shown in Map 2.

The U.S. Situation:

Dr. G. Rambo, Director of Technical Operations, National Pest Control Association, confirms our earlier statements that the Province of Ontario administers the only financial assistance program to control termites in North America. No state in the heavily infested New England area offers any financial support from either the Federal, State or the Municipal level. New York State offers assistance in the cost of chemical treatment, but to senior citizens only. Although most pest control companies recommend the removal of wood/soil contact, it is not enforced before chemical treatment, and there is no government enforcement of removal of wood/soil contact in the northern United States. The United States Department of Housing and Urban Development (Veterans Administration) suggests that pest control companies should compile wood-destroying organism infestation reports which are then filed with the VA/FHA. This clears pest control companies of liability claims when properties are transferred. California and Florida have similar State procedures.

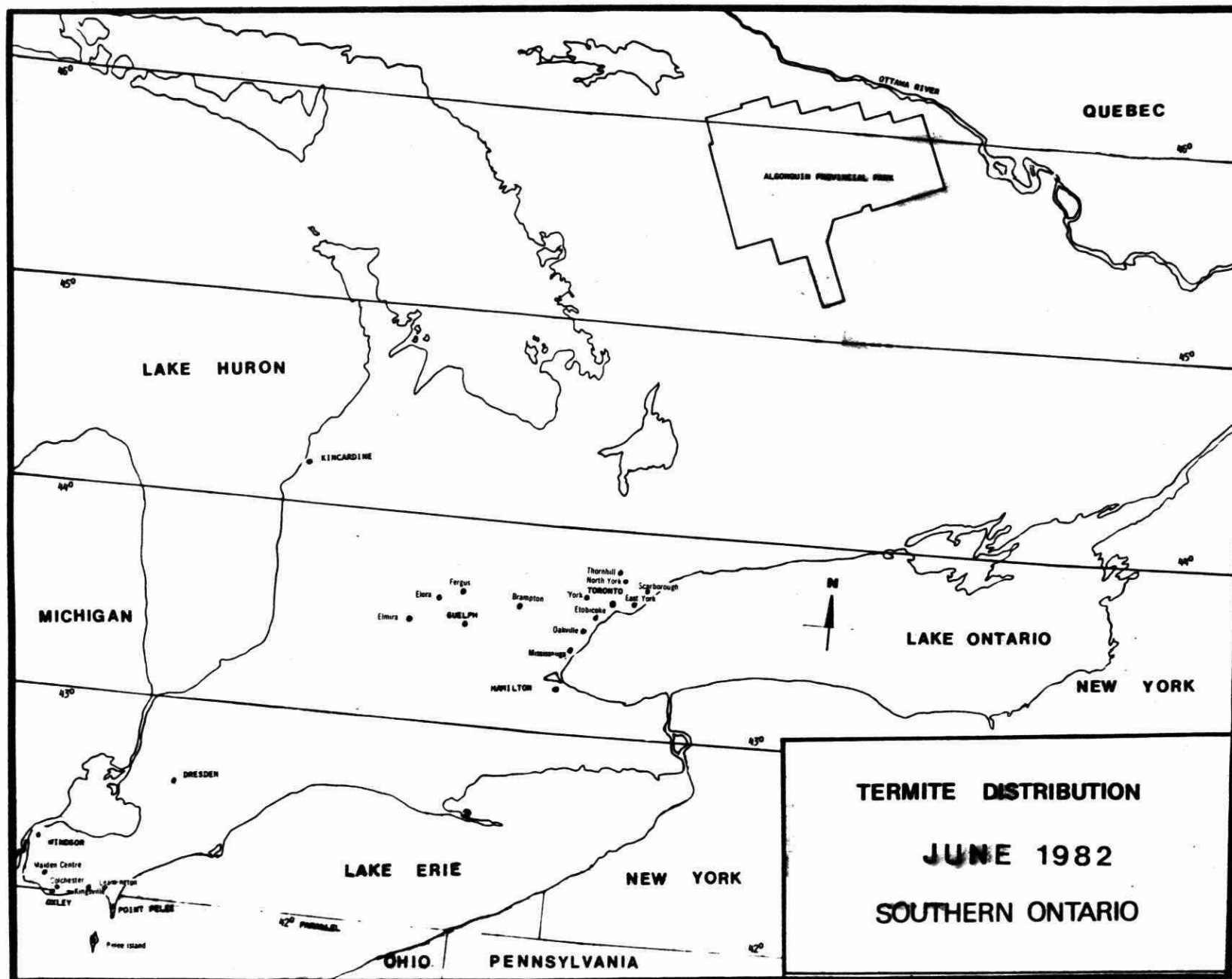
Public information on termites is disseminated by various state university publications, by the United States Department of Agriculture and by the Department of Housing and Urban Development. The Gulfport Mississippi Termite Research Centre also prints material for distribution to the public and others as does the chemical industry.

Other Provinces:

British Columbia has a limited problem with subterranean termites on Vancouver Island. No provincial financial support is provided as the problem is not considered serious. Provincial officials claim that, although pest control companies are licensed for this purpose, very few treatments are carried out in the Province.

Summary:

Termites are a pest of economic significance and can be controlled by the removal of wood/soil contact and the proper application of pesticides. Ontario has the only present government assistance incentive program to control termites. The information obtained from termite surveys and through the grant incentive program has improved the effectiveness of the control procedures. The degree of infestation in the City of Toronto and Borough of East York and the increase in demand for provincial support from these and other municipalities has created a need for program review.



MAP 2

TERMITE DISTRIBUTION IN THE UNITED STATES.



SHADED AREAS INDICATE TERRITORY IN WHICH
SUBTERRANEAN TERMITES HAVE BEEN LOCATED.
DOTTED LINE INDICATES NORTHERN LIMIT OF DRY-WOOD
TERMITE DISTRIBUTION. AFTER DR. ALFRED E. EMERSON,
UNIVERSITY OF CHICAGO

APPENDIX III

A BRIEF HISTORY OF THE TERMITE CONTROL PROGRAM

Occurrence:

Subterranean termites are by far the most destructive insect pest of wood. In the appropriate environment - the forest - this insect is a beneficial insect in the conversion of cellulose material into humus. The name subterranean refers to the life habit of this species of termite in that it lives under the ground. The main food supply is cellulose materials. Termites are nonselective in their life habits and will infest soil, trees, fences, outbuildings, and small or large buildings.

Early surveys for termite infested areas were conducted in 1948-49 and 1952-53 by E. B. Watson of the Department of Agriculture. These surveys were based on the use of stakes which were left in the soil for five months then examined for termite infestation. The first survey was conducted in the southwest portion of the province and the second in the Toronto region.

In January, 1964, the Minister of Economics and Development was advised of a serious condition existing in certain parts of Toronto. This condition had been discovered during a study of the Forest Research Laboratory (C. S. Kirby), which had been released in April, 1963.

Preliminary investigations of this termite problem were carried out by staff of the Housing Branch, and resulted in a report being presented to Treasury Board in April, 1964. The Treasury Board Report authorized the Minister of Economics and Development to carry out a study, in collaboration with the City, in certain clearly defined areas of the City. The purpose of the study was to determine of the effect of chemical disinfestation on termites and the extent of termite damage to structures.

The Mayor of Toronto was informed in May, 1964, that the Housing Branch had secured approval of the necessary funds for this study, in the form of a maximum grant to the City of \$150,000 under the authority of Provincial Order-in-Council #1220/64.

The method of applying the grant was to be as follows: The Ontario Government would contribute 25 per cent of the cost of disinfestation and repairs up to a maximum of \$125 in any one case, subject to the City bearing an equal amount. The property owner would be responsible for 50 per cent of any costs thereafter.

Although the scope of this Order-in-Council was confined to the City of Toronto to determine the extent of the termite problem therein, it was established very early that the problem was not restricted to the City, and the Order-in-Council of 1964 was amended in 1967 to include all the Metropolitan Toronto area.

Statutory authority for making termite control grants was provided in the Housing Development Act, which permitted the Department of Economics, Trade and Development to make grants in aid of studies and to otherwise assist the house building industry. Further statutory authority was contained in The Planning Act, R.S.O. 1960, Sections 21(a) and (b), and Section 31, Chapter 296, which required municipalities to control termites, to provide grants of 50% of total costs or \$250 whichever is the less, and to provide loans to cover the balance of disinfestation cost.

The Planning Act RSO 1970 is the present statutory authority [(Section 46 (22) (a) (b) and (c) and Section 46(23)]. Municipal by-laws must be passed to express these provisions. To date, such by-laws exist in nineteen municipalities with which we have agreements. See table #1.

From 1965 to the end of 1971 grants were made totalling \$62,586 by Ontario Housing Corporation. A similar amount was made by the three Metropolitan municipalities (the City of Toronto and the Boroughs of East York and Scarborough) which requested grants under the program at that time. See table #2.

The City of Toronto requested that grants being made by Ontario Housing Corporation in respect of residential termite disinfestations and repairs be extended to non-residential properties. Moreover, the City requested in 1969 that the grants themselves be increased from 25% of total cost up to a maximum grant of \$125, to 50% or a maximum grant of \$250.

Because Ontario Housing Corporation was involved in the residential field only under the terms of the Housing Development Act, it was decided to continue making grants available only for residential termite control. Recommendations from a survey of funding from 1965-1971 stated that grants should not be increased as treatment costs did not appear to warrant the action. The average cost of chemical treatment in 1971 was \$360 (the average cost in 1982 is \$550.)

TABLE #1

MUNICIPALITIES WITH TERMITE CONTROL AGREEMENTS

<u>MUNICIPALITY</u>	<u>DATE EFFECTIVE</u>
CITY OF GUELPH	1975
CITY OF NORTH YORK	1980
CITY OF TORONTO	1977
CITY OF MISSISSAUGA	1982
BOROUGH OF EAST YORK	1977
BOROUGH OF ETOBICOKE	1978
BOROUGH OF SCARBOROUGH	1976
BOROUGH OF YORK	1979
TOWNSHIP OF GOSFIELD SOUTH	1977
TOWNSHIP OF NICHOL	1977
TOWNSHIP OF PELEE	1977
TOWNSHIP OF WOOLWICH	1982
TOWNSHIP OF MERSEA	1982
TOWN OF DRESDEN	1980
TOWN OF FERGUS	1978
TOWN OF KINCARDINE	1975
TOWN OF LEAMINGTON	1977
TOWN OF MARKHAM	1977
VILLAGE OF ELORA	1977

TABLE #2

25% GRANTS PAID BY OHC TO HOMEOWNERS

	<u>City of</u> <u>Toronto</u>	<u>Boroughs</u>		<u>York</u>	<u>Total</u>
		<u>Scarborough</u>	<u>East York</u>		
1964	\$2,589	--	--	--	\$2,589
1966	2,171	--	--	--	2,171
1967	3,791	--	2,215	--	6,006
1968	5,886	--	5,314	--	11,200
1969	4,190	1,586	5,279	--	16,055
1970	6,275	831	6,457	--	13,563
1971	<u>8,844</u>	<u>592</u>	<u>6,199</u>	<u>--</u>	<u>15,635</u>
TOTAL from	<u>\$33,746</u>	<u>\$3,376</u>	<u>\$25,464</u>	<u>Nil</u>	<u>\$62,586</u>
1965 to 1971	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

There are no records available of the number of properties treated per year.

During the early 1970s OHC continued the program as outlined but with several problems arising.

1. The Ontario Housing Corporation program was strictly a financial program. The Corporation lacked the expertise in pesticides and entomology to promote or assess the effectiveness of the control of termites. There were no surveys or monitoring programs.
2. Under this program only the main dwelling was covered under the financial grant system. Without the treatment of fences, trees, and other wood products, the pest continued to spread laterally to adjacent properties and to reinfest treated properties when wood/soil contact had not been adequately eliminated.
3. The number of municipalities participating in this program was limited since it was not made available to all areas experiencing infestations.
4. The program lacked technical and educational features directed towards the public, municipalities and pesticide industry.

The Pesticides Control Section approached the City of Toronto in 1973 and 1974 to establish the status of the program in order to be able to supply recommendations to the Ontario Housing Corporation. A meeting between Mr. J. Long of the Ontario Housing Corporation and Mr. J. Onderdonk and Mr. M. Wood of the Pesticides Control Section began the involvement of the Ministry of the Environment and subsequently the Termite Control Program. The following objectives were outlined in their meeting.

- to eradicate or substantially reduce termite infestations in the province. Subordinate objectives were:
 - to improve the effectiveness of termite extermination and prevention projects;
 - to prevent the spread by lateral migration or transportation of termite colonies;
 - to inform and educate the public, municipalities and pesticides industry appropriately concerning termites and their control.

The program was basically to cover the following components:

- participating municipalities must enact a by-law requiring the control of termites on infested premises to provide for systematic control programs.
- the requirement of the treatment of a property as a whole (dwelling, outbuildings, fences, trees, etc.); including the removal of all soil/wood contact and chemical treatment to soil;
- a system of grants to assist homeowners with approved termite control and preventative measures carried out by a licensed applicator in participating municipalities;
- an information and education program directed at the public, municipalities and the pesticides industry;
- surveys and monitoring of termite infestations for the purposes of program evaluation, development and assessment;

The Ministry of the Environment is responsible for development, technical expertise and environmental procedures. The program is designed to improve the effectiveness of extermination and preventative measures. The financial support by the Ministry for the control of termites is an integral part and provides the necessary incentive to the municipality and the general public. The Program as outlined began in August 1975. The City of Guelph was the first and only municipality to receive grants in that year, when 12 properties were treated at a cost of \$2,247.20 for chemical work. Four of these required wood/soil contact removal at an additional cost of \$2,826.00. Summer surveys conducted with attractant bait blocks revealed other infestations and in 1975, the town of Kincardine and the Borough of East York also came under agreement, and Leamington followed in February 1976. Although a budget of \$70,000 was allotted for grants in 1975, only \$5,073.20 was actually awarded.

In 1976, the budget was increased to \$125,000, based on the expectation that more municipalities would be involved in the program. The average cost of chemical treatment that year was \$450-\$500.

During 1976, 81 properties were treated as follows and grants paid out.

East York - 48
Kincardine - 32
Guelph - 1

Many other applications were received and funds committed but not paid out of the 76/77 year budget. A total of \$19,428.00 was awarded for chemical work, and eight premises also required wood/soil contact removal at a cost of \$5,017.42 to give a total disbursement of \$24,445.42.

Although funds did not reach the budget allotted, monies remaining did not carry into the following fiscal year.

The budget for 1977/78 was again \$125,000, and this was increased to \$200,00 for the fiscal year 1978/79. When the City of Toronto, Village of Elora, Town of Markham, Borough of Scarborough and Gosfield South Township came under agreement.

The budget remained the same for 1979/80, the first year that funds were not sufficient to cover the number of applications received. However, since the contractors were unable to handle the work load only a proportion of the properties for which application was made were actually treated. Tables 3 & 4 show the number of properties treated and the expenditures for 1979/80, 1980/81 and 1981/82.

By the end of 1979 Fergus, the Borough of Etobicoke and Pelee Island were also under agreement and several individual agreements had been made in Brampton and Toronto.

A total of 488 properties applied for grants in financial year 1978/79 year as follows:

Kincardine	90	Toronto	288
Leamington	8	East York	42
Elora	13	Scarborough	28
Guelph	9	Etobicoke	2
Fergus	7	Brampton	1 (individual agreement)

As in the preceding years, not all these applications were completed and funded from the 1978/79 budget.

The base budget in the 1980/81 fiscal year was \$200,000 to which \$50,000 was added to cover all current applications. The 1981/82 season began with a \$200,000 base budget to which a further \$170,000 was added for a total of \$370,000.00.

The basic program as at present administered by the Ontario Ministry of Environment operates as follows:

1. A Municipality with a termite problem is required to pass a termite bylaw under Sec. 46(22) (23) of the Planning Act.
2. The Municipality then enters into an agreement with the Ministry of the Environment.

If the termite bylaw is enforced by the Municipality, this agreement permits the Ministry to pay grants to homeowners. The Municipality processes applications, and inspects properties after treatments have been carried out to ensure satisfactory completion.

3. Grants are available for existing residential properties as follows:
 - a) Removal of wood/soil contact and chemical treatment: 60% of the cost of the removal of wood/soil contact (where necessary) and of chemical treatment to a maximum of \$2,000.00 per property. Two estimates are required from contractors if wood/soil contact removal is necessary, and two from licensed pest control companies for chemical treatment. Most Municipalities also make grants of 25% of the costs, to a maximum of \$125.00 (however, the Planning Act makes provision for grants of up to \$250.00).

and for new developments as follows:

- b) Pretreatment - 60% of the cost of pretreatment to a maximum of \$1,000.00. (Two quotes required from licenced pest control companies.)

Based on actual experience the program functions as follows:

1. Homeowner calls the Municipality building department to enquire about termites.
2. A Building Inspector visits homeowner, explains procedure, confirms termites and leaves application form and relevant information. The inspector leaves the homeowner a "termite kit", which includes information explaining the termite control program and the correct procedures to follow. The termite kit should include the following:
 - 1) the blue Termite Control Program pamphlet
 - 2) the wood/soil contact removal booklet
 - 3) an application form
 - 4) the municipal termite bylaw (optional)
 - 5) a list of licenced exterminators
 - 6) the new Satisfactory Completion Certificate
3. Homeowner obtains two quotes from pest control companies and, and if wood/soil contact removal is necessary, two estimates from contractors and forwards these together with the application form to Municipal Offices.
4. The Municipality checks the documents, keeps copies and sends the originals to the Ministry of the Environment. The Municipality at this time might wish to offer 25% or \$250.00 to the homeowner. (City of Toronto give \$125.00).

5. The Ministry of the Environment sends the homeowner an approval of his application, with all amounts shown (copy to Municipality).
6. After approval, homeowner contacts preferred structural contractor (if wood/soil contact removal is necessary) and notifies municipality as to when work will begin and when the pest control company will treat the property. The homeowner must ensure that the pest control company completes and signs the certificate of completion when the chemical treatment has been completed.
7. Municipal Inspector approves work, co-signs the Satisfactory Completion Certificate and submits it to the Ministry of the Environment.
8. Invoices from contractors are sent to the Ministry of the Environment by the homeowner or by contractors.
9. Ministry of the Environment pays grant (to the homeowner) upon receipt of acceptable invoices and Satisfactory Completion Certificate.

TABLE #3

TERMITES GRANTS

MUNICIPALITY	APRIL 1979	APRIL 1980	APRIL 1981	TOTAL
	<u>MARCH 1980</u>	<u>MARCH 1981</u>	<u>MARCH 1982</u>	<u>AMOUNT</u>
BOROUGH OF EAST YORK	24,100.00	26,032.00	30,577.00	80,709.00
BOROUGH OF ETOBICOKE	3,111.00	8,280.00	9,289.00	20,680.00
CITY OF GUELPH	9,212.00	5,226.00	1,724.00	16,162.00
CITY OF TORONTO	117,296.00	159,486.00	262,289.00	539,071.00
B. OF SCARBOROUGH	21,213.00	12,682.00	15,264.00	49,159.00
TOWN OF FERGUS	2,506.00	138.00	--	2,644.00
TOWN OF KINCARDINE	17,996.00	6,429.00	10,434.00	34,859.00
TOWN OF LEAMINGTON	3,120.00	26,248.00	17,560.00	46,928.00
VILLAGE OF ELORA	1,359.00	2,682.00	6,745.00	10,786.00
TOWN OF DRESDEN			1,720.00	1,720.00
BOROUGH OF YORK	--	1,095.00	6,192.00	7,287.00
CITY OF NORTH YORK	--	1,546.00	--	1,546.00
MARKHAM	--	--	1,236.00	1,236.00
TOTAL AMOUNT	<u>199,913.00</u>	<u>249,844.00</u>	<u>363,030.00 =</u>	<u>812,787.00</u>

1979/80	-	TOTAL BUDGET	\$200,000.00
		Expenditures City of Toronto	\$117,296.00
1980/81	-	TOTAL BUDGET	\$250,000.00
		Expenditures City of Toronto	\$159,486.00
1981/82	-	TOTAL BUDGET	\$365,000.00
		Expenditures City of Toronto	\$262,289.00

March 16th, 1982

TABLE #4

NO. OF PREMISES TREATED FOR TERMITE INFESTATION

<u>MUNICIPALITY</u>	<u>1979/80</u>	<u>1980/81</u>	<u>1981/82</u>	<u>TOTAL</u>
BOROUGH OF EAST YORK	49	47	42	138
BOROUGH OF ETOBICOKE	4	8	13	25
CITY OF GUELPH	6	5	2	13
CITY OF TORONTO	209	184	288	681
BOROUGH OF SCARBOROUGH	47	25	31	103
TOWN OF FERGUS	12	1	--	13
TOWN OF KINCARDINE	36	18	34	88
TOWN OF LEAMINGTON	9	82	32	123
VILLAGE OF ELORA	5	11	20	36
TOWN OF DRESDEN	--	--	7	7
BOROUGH OF YORK	--	1	7	8
CITY OF NORTH YORK	--	1	--	1
MARKHAM	--	--	2	2
	<u>377</u>	<u>383</u>	<u>478</u>	= <u>1,238</u>

March 16th, 1982

MUNICIPAL TERMITE CONTROL AGREEMENT

THIS AGREEMENT Made the day of 198 ,
BETWEEN:

HER MAJESTY THE QUEEN IN RIGHT
OF ONTARIO AS REPRESENTED BY
THE MINISTER OF THE ENVIRONMENT
(the "Crown")

OF THE FIRST PART

- and -

THE CORPORATION OF
(the "Municipality")

OF THE SECOND PART

WHEREAS the parties hereto are both concerned about the spread of termites in Ontario and particularly within the territorial limits of the Municipality and about the effects of such pests on property and on the natural environment, and

WHEREAS the Crown is entering into this agreement for the purpose of gaining information related to the activities and the spread of the activities of termites in Ontario, to the effectiveness of various pesticides in controlling termites, and also for the purpose of controlling such termites, their activities and the spread of such activities,

AND WHEREAS the Municipality was authorized to enter into this agreement by dated the day of 198 ;
and

WHEREAS By-law of the Municipality in respect of termite control (the "Termite Control By-law") is in force;

NOW THEREFORE the parties hereto mutually agree and covenant as follows:

1. The Municipality will give prompt written notice to the Crown in the event that it alters or revokes the aforesaid Termite Control By-law.
2. The Municipality will conscientiously enforce the Termite Control By-law and will consult the Crown with respect to the conduct of the Termite Control program of the Municipality.
3. The Municipality will keep the Crown advised of any information which comes into its possession with respect to the spread of termite infestation within the territorial limits of the Municipality and the effectiveness of measures taken to control termites and the spread thereof.
4. The Municipality agrees to the concept that it should make grants and loans for the purpose of termite control pursuant to the Termite Control By-law.
5. The Municipality shall assist the Crown in the making, by the Crown, of grants to inhabitants of the Municipality for the purpose of termite control by accepting and processing applications for such grants which are submitted to it.
6. An application for such a grant shall be in form similar to that form attached as a Schedule hereto.
7. The Municipality shall consider each application for a grant and shall either refuse the application, giving brief written reasons therefor to the applicant, or forward the application to the Crown together with a recommendation, and brief written reasons therefor, that the application be accepted or accepted subject to specified terms and conditions.

8. The Municipality may refuse the application on any grounds which it finds to be sufficient, provided that it notify the applicant that its refusal is subject to review by the Pesticides Control Section of the Ontario Ministry of the Environment at the request of the applicant.

9. (1) Upon receipt from the Municipality of the application and recommendation, the Crown shall forthwith accept the recommendation of the Municipality or reject the recommendation and the application.

9. (2) Notwithstanding Subsection 1, the Crown may impose terms and conditions on any grant.

10. The Crown shall reject the recommendation and the application only if:

- (a) It does not have sufficient funds allocated for the purpose of making the grant;
- (b) it finds that the work is substantially unnecessary;
- (c) it finds that the work as described would be inadequate to effectively render the building or structure and land resistant to termite infestation;
- (d) it finds that the cost of the work as provided in the estimate of the operator who is to do the work is wholly unreasonable considering the extent of the necessary work.

11. The Crown shall notify the applicant and the Municipality of its decision forthwith.

12. Upon satisfactory completion of the work, the Municipality shall provide the Crown with a certificate of the satisfactory completion and the Crown shall pay to the applicant, or to the operator or Municipality if the applicant so directs in writing, a sum calculated in the following manner:

- (a) the grant will be equal to a percentage specified in clause (b) of the cost of the extermination work and the destruction of infested materials, subject to the limits in clauses (d) and (e). The cost of the work for purpose of calculating grants shall not include the cost of repairs or the cost of the removal of infested materials.
 - (b) The percentage of the cost of the work shall be 60%, in respect of an owner-occupied building used only for residential purposes, the owner of which receives no rental income therefrom.
 - (c) In clause (b) the word "owner" includes a tenant holding the premises on a lease which obliges him to prevent or remedy damage to the building caused by termites.
 - (d) In the event that a grant is made solely for the pretreatment of land on which a building or structure is proposed to be built, the grant shall not exceed \$1,000.00.
 - (e) Subject to clause (d), the grant shall not exceed \$2,000.00.
13. (1) Either party hereto may terminate this agreement at any time by notice in writing given to the other.
13. (2) In the event this agreement is terminated the Crown shall pay grants and the Municipality shall furnish certificates of satisfactory completion with respect to applications approved by the Crown prior to the termination.
14. For the purposes of paragraphs numbered 7, 8 and 9, "Municipality" shall mean the Building Commissioner.

15. This agreement shall enure to the benefit of and be binding upon the parties hereto, their successors and assigns.

IN WITNESS WHEREOF the parties hereto have caused this agreement to be duly executed.

HER MAJESTY THE QUEEN IN RIGHT
OF ONTARIO AS REPRESENTED BY
THE MINISTER OF THE ENVIRONMENT

Minister of the Environment

THE CORPORATION OF

Mayor

Clerk

No. 189—73. A BY-LAW

To provide for termite control.

[Passed June 20, 1973.]

The Council of the Corporation of the City of Toronto enacts as follows:

1. In this by-law:

(a) "residential building" means:

(i) a building used solely for human habitation including any attached accessory use, or

(ii) any building not exceeding three storeys in height containing at least one dwelling unit;

(b) "dwelling unit" means a suite of two or more rooms intended for domestic use and so used by one or more individuals and containing cooking, sleeping and sanitary facilities;

(c) "Commissioner" means the Commissioner of Buildings of the City of Toronto.

2. The Commissioner may give to the owner of any building or structure heretofore or hereafter erected notice in writing requiring that the building or structure be made resistant to termites or other wood-destroying insects by poisoning of the soil adjacent thereto by a licensed pest or termite exterminator in such manner and by such means as is specified in the notice, or requiring that the building or structure be made resistant to termites or other wood-destroying insects by any other means specified in the notice, and upon receipt of such notice the owner shall forthwith carry out the requirements thereof.

3. Where any wooden pole, tree, stump or other wooden or cellulose material not being part of a building has become infested with termites or other wood-destroying insects the Commissioner may give to the owner of such pole, tree, stump or other material notice in writing certifying that such infestation exists and requiring that the said pole, tree, stump or other material be removed and destroyed, and upon receipt of such notice the owner shall forthwith carry out the requirements thereof.

4. The Corporation may, upon application made to it for that purpose, pay to or on behalf of the owner of a residential building a portion of the cost incurred hereafter by such owner in repairing damage done to such residential building by termites or other wood-destroying insects

and/or of rendering any residential building heretofore erected resistant to termites or such other insects, such portion being an amount fixed by the Corporation, not exceeding one-half of the said cost or \$250.00 whichever is the lesser.

5. The Corporation may, upon application made to it for that purpose, loan to an owner of a residential building for purposes of being applied to the cost incurred hereafter by such owner in repairing damage done to such residential building by termites or other wood-destroying insects and/or of rendering any residential building heretofore erected resistant to termites or such other insects, such portion being an amount fixed by the Corporation not exceeding the actual cost of such work less any amount paid by the Corporation in respect thereof under section 4.

6. When an owner intends to make an application pursuant to sections 4 and 5 or either of them he shall do so by delivering the same to the Commissioner and before the carrying out of the work of repairing damage to the residential building by termites or other wood-destroying insects or of rendering the same resistant thereto, the Commissioner shall report thereon with his recommendation to the Council, and the Council may in its discretion grant or refuse any such application or may grant the same subject to such terms and conditions as the Council may prescribe.

7. Every person who contravenes any of the provisions of this by-law shall, upon conviction thereof, forfeit and pay, at the discretion of the convicting judge, penalties not exceeding (exclusive of costs) the sum of One Thousand Dollars (\$1,000.00) for each offence.

8. By-law No. 22272 being "A By-law Respecting Termites" is hereby repealed.

DAVID CROMBIE,
Mayor.
COUNCIL CHAMBER,
Toronto, June 20, 1973.
(L.S.)

ROY V. HENDERSON,
Deputy City Clerk.

APPENDIX IV

DISCUSSION NOTES ON STATUS OF THE PROGRAM

1. The number of municipalities involved in the program has increased from one in 1975 to eighteen in 1982. Eight other municipalities have termite problems and we are in the midst of negotiating agreement procedures.
2. The budget for the program was \$125,000 in 1975. It was increased to \$200,000 for each of the years for 1976, 1977, 1978, 1979 and increased to \$250,000 in 1980 and to \$370,000 in 1981 and \$500,000 in 1982.
3. In 1978 a wood/soil removal program was fully incorporated that has shown positive results in preventing re-infestations when completed along with chemical treatment.
4. Applications for approval and applications for grants are accepted by the Ministry through municipalities on a first come first served basis until funds are depleted. Since municipalities are not aware of our budget allotment, applications are constantly being submitted throughout the year by each municipality to the Ministry.
5. The Province of Ontario has twenty-five licenced exterminators capable of performing termite control. Of these twenty-five, only sixteen are actively involved. Only eight companies operate in the Metropolitan Toronto area. To treat a property for termite infestation to our recommendations takes most of a day. Many pest control companies do not have the equipment to operate in the winter months. Similarly, structural contractors tend to limit winter operations to interior work.
6. The City of Toronto has declared itself a termite infested area as a whole. Most municipalities are attempting to control termites by a method called block treatments where entire blocks of homes, all fence posts, and trees are treated and wood/soil contact is removed prior to chemical treatment. The procedure has been adopted in areas of the City of Toronto but is difficult to carry out due to the extent of infestations. Experience has shown that the eight extermination companies operating in the Metropolitan area can treat about four hundred units per year.
7. The building departments enforce a termite bylaw, as required by the Municipal/Provincial agreement and supply inspectors to investigate all complaints regarding definite suspected termite infestations from the public. Under agreement, the termite bylaw, which requires wood/soil removal and chemical treatment must be enforced and substantial monetary burden is placed on the homeowner. The experience of past years has shown that the grant has aided many homeowners who could not otherwise have afforded the cost of the treatment.
8. Experience has shown a significant lag between approval and the application for the grant on completion of work. Many projects carry over from one fiscal year to the next. Some approval work is never undertaken. The system does not facilitate the forecast of funding needs.

9. The increase in the publicity of the termite program by the Ministry to (infested) municipalities (through summer surveys) and to the householders by concerned local politicians and the building departments has caused vast increases in demand for grants in various areas of the Province. The budget increases have not corresponded to this demand. The City of Toronto is a case in point.
10. The fiscal budget allotted in the early years of the program was sufficient to run the program. As the program grew and the wood/soil contact removal program was incorporated, a heavy burden was placed on the budget to cover these costs.
11. Any delays in making payments to homeowners may create hardship or in the extreme result in Mechanic's Liens.
12. In most municipalities the program is administered by the Building Department. Only the City of Toronto has a full time co-ordinator. Kincardine and Leamington usually hire students for summer assistance. Some municipalities had to regulate submissions of applications.

APPENDIX V

ROLE OF PROVINCIAL MINISTRIES IN A TERMITE CONTROL PROGRAM

1) THE MINISTRY OF THE ENVIRONMENT

The following is an outline of the present role of the Ministry of Environment with respect to the termite control program.

ENVIRONMENTAL- development of environmental procedures to ensure safe and proper handling of pesticides used in termite control. Pest control applicators are presently licenced to perform termite treatments.

TECHNICAL - provision of technical information to the pest control industry to enhance the effectiveness of termite control and preventative measures. Several publications are available for industry, municipal government and the public. Educational seminars are also provided to supply building departments and the pest control industry with updated material.

SURVEY & MONITORING - maintenance of a mapping system to monitor the extent of infestation of termites in Ontario. The assessment and evaluation of the program obtained is from this monitoring system. The summer (visual) surveys are presented to each municipality for their individual municipal programs.

FINANCIAL - provision of a grant which assists the residential home occupant with the cost of treatment; the administration of the grant provides the province with data from surveying and monitoring studies. The grant is an integral part of the program for both municipality and province in obtaining information and providing an incentive to obtain the program's objective of control.

- RESEARCH - The Ministry of the Environment is in contact with its counterparts in the U.S.A. and keeps updated files on research reports. The Ontario Pesticides Advisory Committee provides funds for research in association with universities. The University of Guelph has received funding to assist in termite biology research.
- LEGISLATIVE - Section 2(a-h) of the Pesticides Act allows for the investigation of problems relating to pesticides, to conduct studies, seminars and educational programs, disseminate publications and make grants for the control of pests. This section of the Act also allows for Orders-in-Council to approve agreements between the Crown and government bodies or individuals in relation to pesticides or pest control.

The Pesticides Act and Regulations also allows for the proper licencing and enforcement of pest control companies engaged in termite control procedures.

2) THE MINISTRY OF MUNICIPAL AFFAIRS AND HOUSING

The Ministry of Municipal Affairs and Housing has mandate a to assist in the provision of affordable housing and to ensure that this housing stock is maintained and improved.

The Ministry has a series of housing initiatives to meet this objective, including the Ontario Home Renewal Program and the Ontario Neighbourhood Improvement Program.

In view of this mandate it would be appropriate for the Ministry to be involved in the Termite Control Program. It could effectively participate in the development of the Program through its Housing Programs Delivery, Field Services Branch.

3) THE MINISTRY OF CONSUMER AND COMMERCIAL RELATIONS

The prime involvement of the Ministry of Consumer and Commercial Relations in a provincial termite control program would be through the administration of the Building Code Act.

Requirements in the Building Code for new construction in areas where termites are known to exist would constitute the most important involvement of the Ministry of Consumer and Commercial Relations in a provincial termite control program. Building Code requirements are limited to the incorporation of certain construction details and materials which are intended to inhibit infestation of a building. The Building Code does not deal with the use of pesticides in soil treatment.

Many municipalities with termite infestations may assign responsibility for enforcement of termite control to their building departments. Municipal building departments are in frequent contact with the MCCR. On this basis MCCR can provide advice regarding municipal administration of a termite control program and the role of other provincial ministries.

If a building has been so seriously affected by termites that its use is considered dangerous, a municipality may be able to require repairs by virtue of the provisions relative to "unsafe buildings" contained in the Building Code Act or through resort to minimum standards of maintenance and occupancy by-laws authorized under the Planning Act.

4) THE MINISTRY OF NATURAL RESOURCES

The Ministry of Natural Resources has an interest in the Termite Control Program in Ontario due to historical association with the problem rather than to current active involvement. Representation of a forest-oriented Ministry on the Review Committee is appropriate inasmuch as the native environment of the eastern subterranean termite may be considered to be the forest. However, such a ministry should not involve itself in more than a technical advisory capacity since damage by termites to living trees, especially in an urban environment, is relatively insignificant. Because almost all the economic impact of termites is to processed structural wood, ministries charged with administering housing programs, e.g. The Ministry of Municipal Affairs and Housing, should assume a major role in any termite control program. At the same time, the Ministry of the Environment should provide the technical and physical assistance necessary to survey and monitor infestations adequately, as well as to control and evaluate the application of pesticides for suppression or containment of termites.